



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,871	02/24/2004	Takahiro Kakumaru	8029-1061	8294
466 7590 02/20/2007 YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			EXAMINER GARY, ERIKA A	
			ART UNIT	PAPER NUMBER
			2617	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/20/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/784,871

Applicant(s)

KAKUMARU ET AL.

Examiner

Erika A. Gary

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 43-60 is/are rejected.
- 7) ☒ Claim(s) 19-42 and 61-84 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: the foreign priority data should be included on the first page of the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 43, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamato, US Patent Number 6,954,651 (hereinafter Yamato).

Regarding claims 1 and 2, Yamato discloses a radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising: a communication control section; a radio interface section; and a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein: the PS-Poll transmission timing changer determines the timing of

Art Unit: 2617

transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application [abstract; fig. 7; col. 6: lines 30-39; col. 8: lines 13-26; col. 10: lines 29-45; col. 11: lines 21-46].

Regarding claims 43 and 44, Yamato discloses a radio communication system which is a radio network system, comprising: one or more radio base stations and one or more radio terminal units claimed in claims 1 or 2 [abstract; fig. 7; col. 6: lines 30-39; col. 8: lines 13-26; col. 10: lines 29-45; col. 11: lines 21-46].

4. Claims 1, 2, 43, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Meggers et al., US Patent Number 6,728,270 (hereinafter Meggers).

Regarding claims 1 and 2, Meggers discloses a radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising: a communication control section; a radio interface section; and a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein: the PS-Poll transmission timing changer determines the timing of transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application [abstract; col. 9: lines 6-49; col. 11: lines 1-18; col. 12: lines 36-50; col. 14: lines 29-33, 52-67; col. 15: lines 18-44].

Regarding claims 43 and 44, Meggers discloses a radio communication system which is a radio network system, comprising: one or more radio base stations and one

or more radio terminal units claimed in claims 1 or 2 [abstract; col. 9: lines 6-49; col. 11: lines 1-18; col. 12: lines 36-50; col. 14: lines 29-33, 52-67; col. 15: lines 18-44].

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-18 and 45-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meggers.

Regarding claims 3-18, Meggers suggests a radio terminal unit which sends a radio base station a PS-Poll as a control packet for requesting delivery so as to receive packets buffered by the radio base station, comprising: a communication control section; a radio interface section; and a PS-Poll transmission timing changer for changing the timing of transmission of the PS-Poll according to the operation mode of one or more communication applications which are running on the radio terminal unit, wherein: the PS-Poll transmission timing changer determines the timing of transmission of the PS-Poll so that the PS-Poll is transmitted after transmission of data from the communication application; the PS-Poll transmission timing changer detects a changeover in the communication applications, and determines whether there is a communication application that requires real-time processing based on information as to whether real-time processing is necessary or unnecessary

Art Unit: 2617

attached to the data of each communication application every time the changeover is carried out; when there is at least one communication application that requires real-time processing, the communication control section transmits the PS-Poll to the radio base station; when there is no communication application that requires real-time processing, the communication control section carries out intermittent receiving operation based on beacons transmitted from the radio base station; and the communication control section repeatedly receives the packets until no buffered packet remains in the radio base station by the PS-Poll [abstract; col. 9: lines 6-49; col. 11: lines 1-18; col. 12: lines 36-50; col. 14: lines 29-33, 52-67; col. 15: lines 18-44].

What Meggers does not specifically disclose is turning the power of the radio interface section off and on depending on whether or not there are buffered packets to be received by the radio terminal unit. However, the Examiner takes Official Notice that it is well known in the art to perform power control on a radio terminal unit by turning the power off and on based on when information is expected. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Meggers to include this limitation to conserve battery power of the radio terminal unit.

Regarding claims 45-60, Meggers discloses a radio communication system which is a radio network system, comprising: one or more radio base stations and one or more radio terminal units claimed in claims 3-18 [abstract; col. 9: lines 6-49; col. 11: lines 1-18; col. 12: lines 36-50; col. 14: lines 29-33, 52-67; col. 15: lines 18-44].

Allowable Subject Matter

7. Claims 19-42 and 61-84 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Abe, US Patent Number 6,611,508, discloses a wireless communication method and apparatus with power-control channel.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erika A. Gary whose telephone number is 571-272-7841. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EAG

February 15, 2007


ERIKAA. GARY
PRIMARY EXAMINER